BMCSR 15.1

The SHOSHONE-BANNOCK TRIBES

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Ms. Linda Meyer, (WCM-121)
Project Manager RCRA/Superfund
U.S. EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101

Subject: Tribal comments on Eastern Michaud Flats (EMF) CERCLA site:

PRELIMINARY EVALUATION OF THE ADEQUACY OF THE SEDIMENT EVALUATION COMPONENT OF THE EASTERN MICHAUD FLATS ECOLOGICAL RISK ASSESSMENT

Dear Ms. Meyer:

Thank-you for the opportunity to comment on the above-referenced document.

Background:

The Shoshone-Bannock Tribes ("Tribes") are very concerned about the health of the Portneuf River. This river's headwaters are on the Fort Hall Reservation and after passing through State-held lands, it again makes its way through the Fort Hall Reservation where it enters the Snake River system at the American Falls Reservoir. The Portneuf River has been used historically by the members of the Shoshone-Bannock Tribes for plant gathering, drinking water, fishing, and hunting. Before the Portneuf River empties into the American Falls Reservoir, located on the Fort Hall Reservation, there are several discharging springs and the area has been abundant in natural resources, including fisheries, edible and medicinal plants which, along with other waters, form the rich "bottoms" area of the Reservation before entering the Snake River system. The Tribes also depend on irrigation water that is diverted in the summer months for important cropland. FMC was found to exceed their NPDES permit for discharge in the Portneuf River.

The Portneuf River is on Idaho's list as an impaired river, pursuant to Section 303(d) of the Clean Water Act. Because of the important interaction of river water and associated sediments and plant/animal life it is important to assess ecological and human affects, that the Eastern Michaud

Flats (EMF) CERCLA may contribute to the Portneuf sediments.

Specific Comments:

The Shoshone-Bannock Tribes support the recommendations of the draft evaluation, wherein sediment contamination of the Portneuf River is re-assessed, and a review of recent sampling and studies, including the comparison of delta sediment to EMF site-area sediments is carried out, along with the evaluation of wildlife risks by estimating bioaccumulation. However, the Tribes believe that additional sampling is necessary to adequately complete the Ecological Risk Assessment (ERA) associated with sediments. The Tribes support the additional sampling of the heavy metals including, but not limited to: Aluminum, Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Selenium, Vanadium, and Zinc, as well as sampling for Fluorides, Phosphorous, and Nitrates, and the radionuclides lead-210, and Uranium 238. As discussed below the Tribes believe that sampling for benthic organisms should also be carried out. The Tribes support additional testing for the following reasons:

(1) The discharge of contaminants to the Portneuf, by FMC's wastewater, was significantly under-reported by FMC, underestimated by EPA, and would have required much more stringent discharge limits and controls, had the NPDES permit been issued. (The draft permit proposed controls of 17 different chemicals.) Since, the original Remedial Investigation (RI) of sediments was based on under-reported contaminant values from the IWW discharge, a re-sampling effort which incorporates this new information seems warranted. Such sampling of these sediments would assist in determining if the beneficial use of these waters are impaired relative to the State of Idaho water Quality standards (IDAPA 16.01.02.200.02), which includes sediment; as well as for the risks associated with the unique use of these resources by Tribal members.

Phosphorous promotes algae growth in sediments which, in turn, reduces available oxygen for fisheries. The un-permitted discharge of nutrients such as phosphorous and nitrogen compounds from the IWW discharge, and its effects on water quality, benthic organisms and sediments were not adequately evaluated in the original Remedial Investigation, as EPA did not have accurate reports on the levels of these contaminants. Phosphorous, particularly, needs to be re-assessed in order to determine levels detrimental to the river and river sediment.

Fluoride, which has been discharged to the river from EMF sources, is non-biodegradable, relatively persistent and bioaccumulates in the food chain. The range of effluent concentrations from FMC, and from well water for which EMF facilities had discharge permits, exceeds the chronic toxicity level for aquatic life (0.2 to 0.5 mg/L). Fluoride may be elevated in sediments and this constituent should be re-tested, and additional research done to determine if ecotoxicity benchmarks are now available. The sediments in the area of the discharge may have accumulated additional contaminants of concern, not predicted by EPA and FMC.

(2) The overall sampling effort of the RI was carried out in the 1994-1995, period, or earlier, and additional accumulation of sediment contaminants, originating from EMF sources, may have subsequently occurred.

(3) Groundwater discharge in the Portneuf River is hydraulically connected to the EMF facilities of both FMC and J.R. Simplot plants, where arsenic has been found to exceed MCL levels. The IWW discharge effluent has been shown to exceed the drinking water standard for arsenic (NEIC sampling in 1993, showed 17ppb, and in 1998, FMC reported 10.9 ppb)

(4) Information suggests that groundwater discharge to the Portneuf by the EMF sites, mixes with other groundwater near the discharge point in the river, just north of Interstate 86. This would point to the need to sample in more frequent intervals, at the discharge area, and immediately downstream; a method not employed in the original Remedial Investigation. It would seem to be very important to re-sample the metals, which in the RI, exceeded the low-effects level (NOAA), since so much time has passed subsequent to the RI testing.

(5) The RI does not appear to adequately link human health risks associated with the cultural practices of the Tribes, and the ecological risk assessment. Does cadmium, or other constituents, in the Portneuf river sediments accumulate in plants, or fisheries used by the Tribal members? Could their traditional use impact the health of these individuals?

(6) Phosphorous ore contains radioactive constituents, and the Tribes believe that the toxicity of these elements in sediments of the Portneuf should be re-sampled and reevaluated with respect to ecological and human risks.

(7) The Tribes support sampling of benthic organisms in the Portneuf River sediment. There may be bioaccumulation of contaminates that adversely affect the cold water biota. Sampling should include macroinvertibrate abundance and diversity. This benthic sampling could be compared for up- and downstream locations in relative to the EMF site.

(8) The federal regulation [40 CFR 122.44(d)(1)(vi)] supports the need for investigating the existence of specific chemicals in effluents for which the state or tribe has not adopted numeric criteria. Since EPA has records of the IWW discharge characteristics, and groundwater quality, it would follow that additional sampling of sediments in the area of the EMF sites would support EPA's overall goal of investigating chemicals in the effluents.

Thank-you for the opportunity to comment on the adequacy of the draft ecological risk assessment for the Eastern Michaud Flats (EMF) site.

Sincerely yours,

Roger Turner

Roger Turner,
CERCLA/RCRA Manager

cc: Fort Hall Business Council (7)
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